

## Product datasheet for **DM1228**

### CEACAM5 (CEACAM1/5) Mouse Monoclonal Antibody [Clone ID: 4/3/17]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	4/3/17
Applications:	ELISA, FC, IF, IHC, WB
Recommended Dilution:	<b>ELISA:</b> 1/200-1/400. <b>Cell based ELISA</b> with intact, transiently transfected cells: 1/200-1/400. <b>Flow Cytometry:</b> 1.2 µg/10 <sup>6</sup> cells. <b>Immunohistochemistry on Cryosections:</b> 1-2 µg/10 <sup>6</sup> cells.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Immunisation with extracted protein of CEACAM5.
Specificity:	Recognizes CEACAM1, 5 (BGP, CEA, CD66a/e).
Formulation:	PBS, pH 7.2 State: Purified State: Liquid purified IgG fraction
Concentration:	lot specific
Purification:	Affinity Chromatography on Protein G
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	carcinoembryonic antigen related cell adhesion molecule 5
Database Link:	<a href="#">Entrez Gene 1048 Human</a> <a href="#">P06731</a>



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**Background:**

CEA-related cell adhesion molecules (CEACAM) belong to the carcinoembryonic antigen (CEA) family (1). It consists of seven CEACAM (CEACAM1, CEACAM3-CEACAM8) and 11 pregnancy-specific glycoprotein (PSG1-PSG11) members. The CEA family proteins belong to the immunoglobulin (Ig) superfamily and are composed of one Ig variable-like (IgV) and a varying number (0-6) of Ig constant-like (IgC) domains. CEACAM molecules are membrane-bound either via a transmembrane domain or a glycosyl phosphatidyl inositol (GPI) anchor. CEACAM molecules are differentially expressed in epithelial cells or in leucocytes. Over-expression of CEA/CEACAM5 in tumors of epithelial origin is the basis of its wide-spread use as a tumor marker (2). CEACAM1 expression is down-regulated in many tumors indicating a tumor-suppressive function. The anti-tumor effect may be due to inhibition of tumor angiogenesis, possibly by increased secretion of anti-angiogenic molecules from the cells (3). The function of CEA family members varies widely: they function as cell adhesion molecules, tumor suppressors, regulators of lymphocyte and dendritic cell activation, receptors of Neisseria species and other bacteria (1).

**Synonyms:**

Carcinoembryonic antigen, BGP, CEA, CEACAM1, CEACAM5, CD66a,e

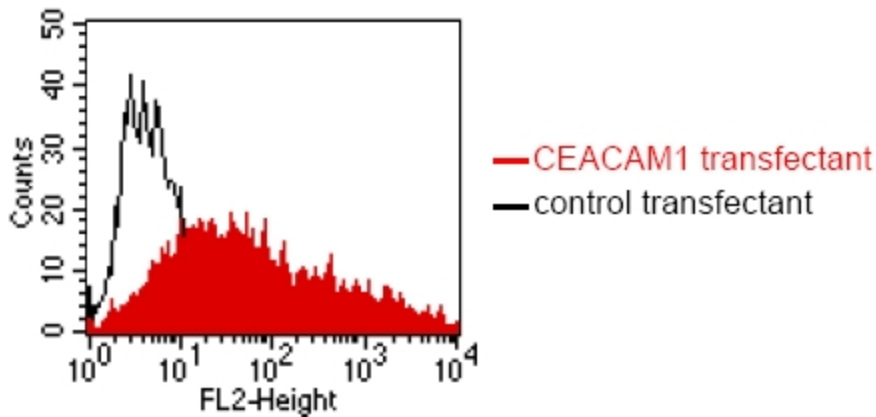
**Product images:**

Figure.1 : FACS analysis of BOSC23 cells using 4/3/17 antibody. BOSC23 cells were transiently transfected with an expression vector encoding either CEACAM1 (Red curve) or an irrelevant protein (control transfectant). Binding of 4/3/17 was detected with a PE conjugated secondary antibody. A positive signal was obtained only with CEACAM1 transfected cells.

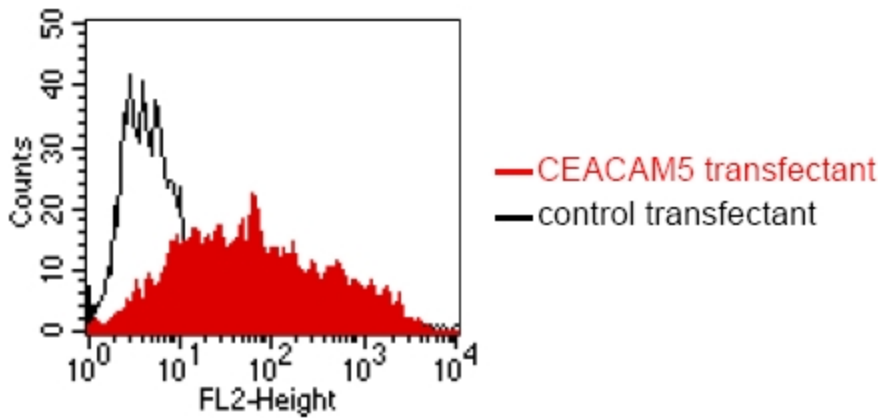


Figure.2 : FACS analysis of BOSC23 cells using 4/3/17 antibody. BOSC23 cells were transiently transfected with an expression vector encoding either CEACAM5 (Red curve) or an irrelevant protein (control transfectant). Binding of 4/3/17 was detected with a PE conjugated secondary antibody. A positive signal was obtained only with CEACAM5 transfected cells.

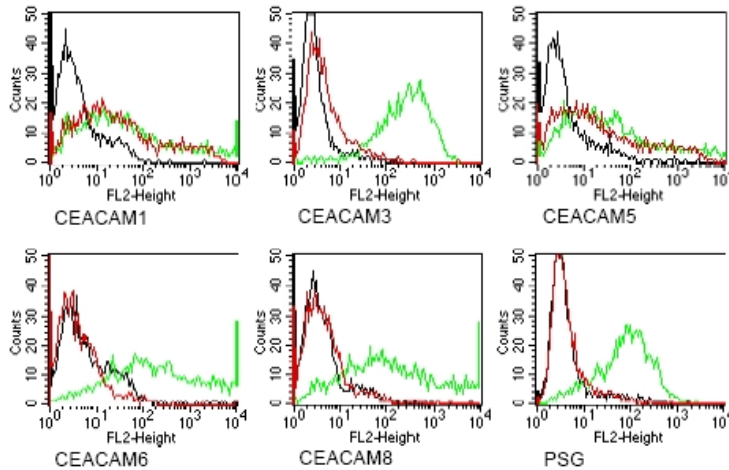


Figure.3: Specificity testing of 4/3/17. BOSC cells were transiently transfected with expression vectors containing either the cDNA of CEACAM1, 3, 5, 6, 8 or are combinant transmembrane-anchored PSG1 fusion protein. Expression of the constructs was confirmed with monoclonal antibodies known to recognise the corresponding proteins (CEACAM1, 3, 5 and 6: D14HD11; CEACAM8: 80H3; PSG: Brified 4/3/17 was tested on all CEACAM transfectants. A positive signal was obtained with CEACAM1 and CEACAM5 expressing cells (Red curves).